

SCHEDULE 5

MARINE ESCAPE SYSTEMS

PART I

CONSTRUCTION AND PERFORMANCE

General

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1.1 A marine escape system shall provide a complete evacuation system for survivors, and shall consist of an inflatable escape chute, an inflatable floating boarding platform and an agreed number of inflatable liferafts.

1.2 The system shall:

- (1.2.1) be constructed with proper workmanship and materials;
- (1.2.2) not be damaged in stowage throughout a temperature range of -30°C to $+65^{\circ}\text{C}$;
- (1.2.3) be capable of operating throughout an air temperature range of -30°C to $+65^{\circ}\text{C}$, and a seawater temperature range of -1°C to $+30^{\circ}\text{C}$;
- (1.2.4) where applicable be rot-proof, corrosion-resistant and not be unduly affected by seawater, oil or fungal attack;
- (1.2.5) be resistant to deterioration from exposure to sunlight;
- (1.2.6) be of highly visible colour on all parts that will assist detection;
- (1.2.7) be fitted with retro-reflective material where it will assist detection;
- (1.2.8) be sited clear of propellers and stabilisers;
- (1.2.9) be capable of removal for annual servicing;
- (1.2.10) be fitted with float free facilities complying with the requirements of Part VI of Schedule 4 on those parts of the system intended for use as inflatable survival equipment;
- (1.2.11) be provided with a gas inflation arrangement complying with the requirements of Part VIII of Schedule 4 which will by a single action rapidly deploy and inflate the system;
- (1.2.12) be provided with an additional gas supply of capacity at least 50% of that required to inflate the system so that any loss of pressure sustained during a deployment can rapidly be replenished;
- (1.2.13) if the inflation system includes air aspiration be provided with a means of protecting the aspirator from the danger of damage and the ingress of water; and
- (1.2.14) be capable of satisfactory operation in a seaway.

Construction

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2.1 The container housing the escape chute and boarding platform shall:

- (2.1.1) be strong enough to withstand the forces which would be imposed upon it in severe weather conditions when the chute and platform is fully deployed and the maximum agreed number of fully loaded inflatable liferafts are attached to the platform; if the system is deployed using a support boom, then both the boom and the container shall be strong enough to safely withstand a

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load which is 200% in excess of that imposed upon it in the above condition without causing damage or distortion to either the boom or the container;

(2.1.2) be suitably constructed on the outboard side to resist damage and to prevent the ingress of water;

(2.1.3) be suitably protected on the inboard side to prevent damage or accidental deployment by unauthorised personnel;

(2.1.4) be prominently labelled on the inboard side with clear deployment instructions;

(2.1.5) be large enough to house the gas inflation system;

(2.1.6) be provided with a secure, but single action quick release of the outer door;

(2.1.7) be constructed so that deployment of the system over the side will also activate the inflation arrangements;

(2.1.8) be provided with a safe access to the top of the chute for evacuees;

(2.1.9) be provided with a secure, manual release arrangement for the chute so that it can be jettisoned for use if required as additional buoyant support;

(2.1.10) be fitted on board with portable securing arrangements so that it can be removed for annual servicing; and

(2.1.11) be provided with adequate drainage arrangements. 2.2. The escape chute shall:

(2.2.1) consist of a single or double track slide with each track of sufficient width to prevent unrestricted evacuation by persons wearing an approved type of lifejacket;

(2.2.2) be of sufficient strength in its fully inflated condition to safely support a load of 300 kg (150 kg for a single track slide) at mid length without bending or distorting;

(2.2.3) be sub-divided such that the loss of gas in any one compartment will not restrict its operational use as a means of evacuation;

(2.2.4) be provided with a slide path which will drain quickly and be safe to operate in wet conditions;

(2.2.5) be provided with vertically inflated panels on each side of the slide path of sufficient depth to permit safe evacuation in severe weather conditions; and

(2.2.6) be effectively connected to the chute container by arrangements which are capable of withstanding a load which is at least 200% greater than the load imposed in the maximum loaded condition.

2.3 The boarding platform shall:

(2.3.1) be stable in a seaway and provide a safe working area for the system operators;

(2.3.2) be self draining;

(2.3.3) be sub-divided in such a way that the loss of gas from any one compartment will not restrict its operational use as a means of evacuation;

(2.3.4) be capable of supporting twice the number of persons carried in the largest inflatable liferaft associated with the system;

(2.3.5) be constructed in accordance with the buoyancy and floor area parameters stated in Part I of Schedule 4;

(2.3.6) be fitted with stabilising waterpockets designed in accordance with the standards stated in Part I of Schedule 4;

(2.3.7) be restrained by a bousing line which is designed to deploy automatically as the system inflates, to prevent it drifting to a position where it would be deployed at an angle of more than 45° to the ship's side;

(2.3.8) be provided with mooring and bowing line patches of sufficient strength to tie off the largest inflatable liferaft associated with the system; and

(2.3.9) be provided with a means of quick release from the chute, and if intended for use as an inflatable liferaft, comply with the appropriate requirements of Part I of Schedule 4.

Performance of the System

3. A marine escape system shall:

3.1 be capable of deployment by one person at the embarkation position;

3.2 not interfere with the deployment of any other life-saving equipment fitted in the ship;

3.3 be capable of evacuating 200% of its designed capacity without significant deterioration of the slide paths;

3.4 be capable of satisfactory operation in a seaway;

3.5 enable the total number of persons for which it is designed to be transferred from the ship into the inflated liferafts within a period of 30 minutes in the case of a passenger ship;

3.6 being capable of being deployed from a passenger ship with a trim and list 50% in excess of the limits in the final stage of flooding set by the requirements in paragraph 2 of Schedule 3 to the Merchant Shipping (Passenger Ship Construction and Survey) Regulations 1984; and

3.7 be evaluated by means of timed evacuation deployments conducted both in harbour and at sea.

Associated Inflatable Liferafts

4. An inflatable liferaft used in conjunction with the marine escape system shall:

4.1 conform with the requirements of Part I of Schedule 4 and Part II of Schedule 4 where applicable;

4.2 be sited close to the system container but be capable of dropping clear of the deployed chute and boarding platform;

4.3 be capable of release from its stowage rack with arrangements which will enable it to be moored and inflated alongside the boarding platform;

4.4 be capable of release from its stowage rack as an independent item of life-saving equipment; and

4.5 be provided with float free arrangements complying with the requirements of Part VI of Schedule 4.

Instructions and Information

5. Instructions and information required for inclusion in the training manual specified in Part I of Schedule 11 and in the instructions for on-board maintenance specified in Part II of Schedule 11 shall be in a form suitable for inclusion in such training manual and instructions for on-board maintenance. Instructions and information shall be in English in a clear and concise form and shall include the following:

5.1 general description of the system;

5.2 installation arrangements;

5.3 operational instructions for the system, and associated survival craft;

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5.4 on-board maintenance requirements; and

5.5 servicing requirements.